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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/768,512	01/25/2001	Hiroshi Kodama	Q62804	5316

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EXAMINER	
TRAN, HIEN THI	
ART UNIT	**PAPER NUMBER**
1764	

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/768,512	KODAMA ET AL	
	Examiner	Art Unit	
	Hien Tran	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6-8 and 10-14* is/are pending in the application.

4a) Of the above claim(s) *11-14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 6-8, 10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1,2,6-8 and 10-14* are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: On page 4, lines 1 and 12 ")" should be deleted. On page 8, line 6 reference to claim 2 is improper and should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-2, 6-8, 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, in claim 1, the newly added limitation is nowhere disclosed in the specification. Also it is unclear as to what applicants are attempting to recite, apparently the groove is used to hold the brazing foil material as melted so as it does not flow toward the inlet or outlet side of the core.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-2, 6-8, 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, lines 15-16 it is unclear as to what structural limitation applicants are attempting to recite and where the newly added limitation is disclosed in the specification as on pages 4-5 and throughout the specification, applicants disclose that the brazing material holds in the solder-rising grooves.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 1-2, 6-8, 10 are rejected under 35 U.S.C. 103(a) as obvious over Usui et al (4,948,774 or 5,026,611) alone or in view of JP 08-141413 and Nonnenmann et al (4,248,186).

Usui et al discloses a metallic carrier for a catalytic converter comprising:

a corrugated sheet 4 made of metal;

a flat sheet 3 made of metal;

a core 1 formed by superposing the corrugated sheet and the flat sheet one on another and by rolling the corrugated sheet and the flat sheet in multiple times;

a brazing material surrounding an outer periphery of an exhaust gas outlet side and an exhaust gas inlet side of the core; and

a metallic outer cylinder 6;

wherein an assembly including the core and the brazing material is forcedly enclosed in said metallic outer cylinder 6 (col. 7, lines 25-30 in Usui '774 and col. 6, lines 25-32 in Usui '661);

wherein the metallic outer cylinder 6 is subjected to heat treatment to join the corrugated and flat sheets, and to join an inner periphery of the metallic outer cylinder and an outer periphery of the core by the brazing material; and

wherein at least one solder-rising preventing groove 7 is defined over an entire circumference of the inner periphery of the outer cylinder 6 at a position located on an exhaust gas inlet side of an area for joining the core.

Although Usui et al is silent as to whether the corrugated sheet and the flat sheet may be diffusionally joined, such diffusion joining is directed to method limitation which is of no patentable moment in apparatus claims.

It appears that the claim is a product-by-process claim and when the patentability of a product-by-process claim is determined, the relevant inquiry is whether the product itself is patentable. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). If a product is the same as or would have been obvious to one having ordinary skill in the art from a product of

the prior art, the product is unpatentable even though the prior art product was made by different process. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985).

Since the product of the instant claim is substantial the same as that of Usui et al, it is unpatentable even though the product of Usui et al may be made by different process. Similar, the features of "brazing foil material wound around" and "press-fitted" are directed to a method of manufacturing the metallic carrier which are of no patentable moment in apparatus claims for the same reasons set forth above. It should be noted that the method of forming the device is not germane to the issue of patentability of the device itself.

Note that since the core and the brazing material in Usui et al is forcedly enclosed in said metallic outer cylinder 6 (col. 7, lines 25-30 in Usui '774 and col. 6, lines 25-32 in Usui '661) which is considered as "press-fitted".

In any event, it would have been obvious to one having ordinary skill in the art at the time the invention was made to select an appropriate method for connecting the sheets and using the brazing foil for joining the core to the outer cylinder as taught by JP 08-141413 and press-fitting the core and brazing material into the outer cylinder as taught by Nonnenmann et al in the apparatus of Usui et al, as an alternative method of manufacturing the metallic carrier, as such is conventional in the art and no cause for patentability here.

With respect to the newly added limitation, it is unclear as to what applicants are attempting to recite as discussed in the 112 rejection above, apparently the newly added limitation introduces new matter. Therefore, the difference between applicants' claim carrier and that of the prior art cannot be identified by the specification of the instant application. As best understood, the newly added limitation is directed to method of making which is of no patentable

moment in apparatus claims and since after being melted, the instant brazing material holds in the groove which is the same as that of Usui et al. As set forth above, when the claim is a product-by-process claim and when the patentability of a product-by-process claim is determined, the relevant inquiry is whether the product itself is patentable. *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972). If a product is the same as or would have been obvious to one having ordinary skill in the art from a product of the prior art, the product is unpatentable even though the prior art product was made by different process. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985).

Since the product of the instant claim is substantial the same as that of Usui et al, it is unpatentable even though the product of Usui et al may be made by different process. It should be noted that the method of forming the device is not germane to the issue of patentability of the device itself.

In any event, in Usui '774, one of the brazing materials 8 locates at the exhaust outlet side and one of the grooves 7 locates at the exhaust inlet side and therefore the carrier of Usui '774 meets the instant claim.

With respect to claim 8, Usui et al '774 discloses that the grooves may be formed in a variety of fashions and not limited to the illustrated embodiments (col. 4, lines 26-37).

Furthermore the shape of the grooves is not considered to confer patentability to the claim. It would have been an obvious matter of design choice to select an appropriate shape for the grooves, since such a modification would have involved a mere change in the shape of a component. A change in shape is generally recognized as being within the level of ordinary skill

in the art, absence showing any unexpected results. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With respect to claim 10, it would have obvious to one having ordinary skill in the art to construct the groove at only one end of the outer cylinder, if one willing to forgo its benefit of having the brazing material at both ends thereof and since providing the brazing material at only one end would have been enough to hold the carrier within the casing.

Response to Arguments

9. Applicant's arguments filed 3/7/05 have been fully considered but they are not persuasive.

Applicants argue that based on page 3 of the instant specification, the brazing material is wound around an outer periphery of an exhaust gas outlet side of a core while the solder-rising preventing groove is positioned on an exhaust gas inlet side of the core, therefore the brazing material at the outlet side, when "wound", is not disposed in the solder-rising preventing groove at the inlet side. Such contention is not persuasive as although the brazing material and the groove are provides on opposite sides, applicants disclose throughout the instant specification that the brazing material when melted are rising to the inlet side of the core and therefore the solder-rising preventing groove which is provided at the inlet side of the core would hold the melted brazing material therein as it flows toward the inlet side of the core.

With respect to the "when wound" aspect, it appears that applicants discuss the method of making. Such argument may be appropriate for method claim, however, this is not the case.

Applicants argue that in the instant invention, the brazing foil material is not provided in the solder-rising preventing groove, while in Usui '744 the grooves 7 serve to retain the brazing

material 8 and therefore Usui '774 fails to teach the features recited in claim 1. Such contention is not persuasive as apparently the solder-rising preventing grooves in the instant claim and in Usui '774 are serving the same purpose, to hold the brazing material so as the melted brazing material would not rise across the grooves thereof.

Furthermore, in Usui '774, one of the brazing materials 8 locates at the exhaust outlet side and one of the grooves 7 locates at the exhaust inlet side and therefore the carrier of Usui '774 meets the instant claim.

Applicants ague that the solder-rising preventing groove of instant claim prevents the melted brazing foil material from flowing toward the exhaust gas inlet side of the core while the brazing material 8 in Usui et al '774 is placed in the groove 7. Such contention is not persuasive as the groove 7 holds the melted brazing material 8 therein and therefore inherently prevents it from flowing toward the inlet or outlet side of the core.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

Hien Tran
Primary Examiner
Art Unit 1764

HT
May 2, 2005